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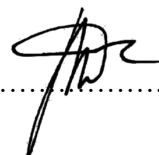
INFRASTRUCTURE ENGINEERING

ELECTRICAL DEPARTMENT SPECIFICATION

SPECIFICATION FOR A 20 TONS HYDRAULIC PRESS

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Transnet Freight Rail - Infrastructure

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1. Scope

This specification stipulates Transnet Freight Rail's requirements for the supply and delivery of a workshop hydraulic press that is capable of handling loads up to 20 tons or more. The hydraulic press shall be capable of pressing, bending, and forming task in an industrial workshop environment.

2. Tenderers

Tenderers shall indicate compliance or non-compliance with the specification. To elaborate their reason for non-compliance of a clause a separate sheet may be used to clarify the extent of non-compliance to specific clause.

3. Operating Conditions

Equipment to be supplied against this specification shall be suitable for satisfactory operation under the following conditions

3.1. Atmospheric condition

- 3.1.1. Altitude : 0 – 1800m above sea level
- 3.1.2. Ambient Temperature : -10 ° C to 40° C
- 3.1.3. Relative Humidity : As high as 90 percent
- 3.1.4. Ambient Storage Temperature : -10° C to 50° C

3.2. Construction

- 3.2.1. The press shall be constructed using high-grade steel, ensuring superior strength, durability, and reliability for heavy-duty applications.
- 3.2.2. The structural design shall feature a sturdy H-frame configuration, which provides enhanced stability and support during operation, making it suitable for pressing, bending, straightening, and forming tasks
- 3.2.3. The hydraulic press shall be coated with a lead-free paint finish, applied following a thorough chemical cleaning process. This finish shall be designed to provide long-lasting protection against rust, corrosion, oil, grease, and dirt, ensuring the press remains resistant to environmental and operational wear.
- 3.2.4. The coating shall also facilitate easy cleaning and maintenance, preserving the appearance and functionality of the equipment over time. Hydraulic press shall be coated with lead-free paint finish that is capable of resisting rust, oil, grease, and dirt.

3.3. Hydraulic System

- 3.3.1. The equipment shall feature a large hydraulic cylinder, reducing the required oil pressure for operation, minimizing wear, and extending life span
- 3.3.2. The Piston-Ram shall be polished and treated to resist skiving, enhancing durability and performance

3.3.3. The hydraulic oil used shall offer corrosion resistance and flexibility in extreme temperatures of -4 degrees to 10 degrees

4. Technical Requirements

- 4.1. It is essential that the equipment is designed and manufactured for very high reliability and long life with minimal maintenance requirements. All equipment shall be user friendly and robust.
- 4.2. The equipment shall be capable of handling loads of at least 20 tons, making it suitable for heavy-duty applications.
- 4.3. The equipment shall have a hydraulic stroke range of at least 190 mm with a tolerance of +/-10mm
- 4.4. The working platform dimensions shall measure no less than 135mm by 390mm, ensuring a stable and secure working surface
- 4.5. The equipment gross weight of the hydraulic press shall not exceed to 62kg.

5. General Requirements

- 5.1 The tenderer shall supply the calibration certificate on the day of delivery of the equipment
- 5.2 The tenderer shall supply the certificate regarding the type of tests conducted.
- 5.3 Sufficient training must be provided to all operators of the equipment
- 5.4 The manuals will be provided on the day of the delivery of the equipment